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Errors appearing in U.S.D.A. FOREST SERVICE FINAL ENVIRONMENTAL STATEMENT
A proposal - Gila Wilderness are listed below in chronological order and
each error is underlined. Replacements to correct errors are given in
quotations.

Page

- 3 Line 1, Paragraph 4 - change 16,196 to "16,156"
- 3 Line 2, Paragraph 4 - change 69 to "109"
- 4 Line 4, Paragraph 1 - change 427,826 to "427,866"
- 4 Line 6, Paragraph 1 - change 86,528 to "86,488"
- 4 Line 2, Paragraph 2 - change 49,450 to "49,490"
- 4 Line 3, Paragraph 2 - change 1,680 to "1,640"
- 18 Line 1, Paragraph 3 - change 49,450 to "49,490"
- 18 Line 2, Paragraph 3 - change 1,680 to "1,640"
- 23 Line 1, Paragraph 2 - change 1,680 to "1,640"

NOTE: These changes do not affect the proposed wilderness acreage.
They correct a 40 acre error in balance of proposed wilderness
acreage between Gila Primitive and Gila Wilderness.

U.S.D.A. FOREST SERVICE FINAL ENVIRONMENTAL STATEMENT

A Proposal - Gila Wilderness

Gila National Forest

New Mexico

Southwestern Region

880921

U. S. DEPARTMENT OF AGRICULTURE
Forest Service

A Proposal - Gila Wilderness

Gila National Forest

Notice of Availability of Final Environmental Statement

Pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969, the Forest Service, Department of Agriculture, has prepared a Final Environmental Statement for A Proposal - Gila Wilderness, Gila National Forest.

The environmental statement considers probable environmental effects or impacts of a proposal to classify 543,474 net acres of Gila National Forest land as Wilderness.

The statement will be available for review during regular working hours at the following locations: USDA, Forest Service, South Building, 12th and Independence Avenue, SW., Washington, D. C.; USDA, Forest Service, Southwestern Region, 517 Gold Avenue, SW., Albuquerque, New Mexico; and Gila National Forest, 301 W. College Avenue, Silver City, New Mexico.

Copies are available for purchase from the National Technical Information Service, U. S. Department of Commerce, Springfield, Virginia 22151; and the Colorado Plateau Environmental Advisory Council, P. O. Box 1389, Flagstaff, Arizona 86001.

U.S.D.A. FOREST SERVICE ENVIRONMENTAL STATEMENT

A Proposal - Gila Wilderness

Gila National Forest

Prepared in Accordance With
Section 102(2)(C) of P.L. 91-190

Summary Sheet

- I. Draft () Final (X)
- II. Administrative () Legislative (X)
- III. Brief Description of Action

The Forest Service, United States Department of Agriculture, proposes that portions of the Gila Primitive Area be designated as Gila Wilderness and added to the present Gila Wilderness, an existing unit of the National Wilderness Preservation System. It also proposes that certain areas of land contiguous to the Primitive Area lands suitable as Wilderness, and/or contiguous to the existing Wilderness, be similarly designated and added to the Gila Wilderness. All portions of both the Gila Primitive Area and present Gila Wilderness, not included within the proposed Gila Wilderness, are recommended for declassification.

This proposal would result in a total Wilderness classification of 543,474 net acres of Gila National Forest land in southwestern New Mexico, within Catron and Grant Counties. There are 690 acres of private lands in Catron County included within the proposed Wilderness.

IV. Environmental Impacts and Adverse Environmental Effects

Environmental impacts discussed relate to biological, physical, social, and economic factors of the environment. The degree of environmental impact of the proposal upon these factors varies. The impact of proposed Wilderness designation and the impact of recommended Gila Wilderness and Primitive Area declassification have both been considered. Impact upon the physical, biological, and economic factors of the environment that would be caused by Wilderness classification is less than might be suspected, considering that about 93 percent of the recommended land is already classified Wilderness or is under wilderness-type

management as Primitive Area. The social aspects of Wilderness classification would be more beneficial than detrimental, even though such classification would limit visitor use to that compatible with Wilderness. The impact on the economic environment is closely related to the consumable resource value that would appear to be available if all Gila Primitive Area lands were declassified.

The recommended Forest Service declassification of Wilderness and Primitive Area lands would alter or remove restriction on consumptive use of certain resources supported by these areas. This would have an impact on all factors of the environment, created by the possible release of resources for consumptive use under the principles of multiple use management, and loss of past Wilderness or Primitive Area sheltering or protection of these same, or other, resources.

Some of the adverse effects of Gila Wilderness designation as proposed are: retention of certain consumable resources from contributing to the economic and social well being; restriction of consumption of other resources to a level below that of fullest possible utilization; prohibition of public motorized access; restriction on exploration and development of possible mineral values; limitation on, or denial of, recreation opportunities and associated comfort and convenience improvements; and attraction of additional visitor use, which may approach area capacity for use and could necessitate the application of use regulation, depriving freedom of choice.

Some of the adverse effects of recommended declassification of Wilderness and Primitive Area lands are: possible loss of remaining wilderness characteristics on portions of these lands; degradation of certain resources, such as natural beauty and soils, through exploitation of consumable resources; and difficulty in overcoming a false opinion by the public of the magnitude of possible economic gains available as a result of declassification.

Adverse impacts can be minimized and are offset by the favorable environmental effects of the proposal.

V. Alternatives Considered

- A. Declassification of the Gila Primitive Area and retention of the present Gila Wilderness with existing boundaries.

- B. Declassification of most Primitive Area lands and adjustment of the present Gila Wilderness boundary to suitable topographic features with a minimum inclusion of Primitive Area and contiguous lands.
- C. Acceptance of the original Forest Service proposed Wilderness, as presented in the draft environmental statement and public brochure, and as presented at public hearings during December 1972.
- D. Acceptance of the Forest Service proposed Wilderness, except for exclusion of lands that would be inundated or otherwise influenced by the reservoir that Hooker Dam would create.
- E. Acceptance of the Forest Service proposed Wilderness with exclusion of lands that would be inundated by Hooker Dam reservoir, and all proposed Wilderness lands located north-east of the Middle Fork of the Gila River.
- F. Designation of a Gila Wilderness excluding all lands having a good possibility of mineralization as indicated by the USGS-USBM mineral study.
- G. Designation of a Gila Wilderness larger than that proposed by the Forest Service, containing 613,938 net acres of National Forest land as suggested by the Joint Conservationist proposal, or any of the suggested intermediate proposals.
- H. Designation of a Gila Wilderness differing from the Forest Service proposal because of exclusion of all Primitive Area and contiguous lands located south and east of the present Wilderness boundary between Tommy Hill Canyon and the Gila River Middle Fork, and Primitive Area lands that would be inundated or otherwise influenced by Hooker Dam reservoir.
- I. No action by Congress regarding either the Primitive Area, Wilderness, or both classified areas.

VI. Federal, State, and Local Agencies From Which Comments Have Been Received

Environmental Protection Agency
 Soil Conservation Service
 Department of the Interior
 New Mexico State Planning Office
 Board of County Commissioners, Catron County, New Mexico
 Board of County Commissioners, Grant County, New Mexico

VII. Significant Environmental Impact

Yes ()

No (X)

VIII. Date Available for CEQ and Public

Draft Statement: October 5, 1972

Final Statement: **DEC 4 1974**

U.S.D.A. FOREST SERVICE ENVIRONMENTAL STATEMENT

A Proposal - Gila Wilderness

Prepared in Accordance with
Section 102(2)(C) of P.L. 91-190

December 1973

Type of Statement: Final

Date of Transmission to CEQ:

Type of Action: Legislative

Responsible Official: John R. McGuire, Chief
U.S.D.A. Forest Service
Washington, D. C. 20250

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I. Description

The Department of Agriculture proposal for a Gila Wilderness is contained in a document entitled, A Proposal, Gila Wilderness, Gila National Forest, New Mexico. This document is a detailed report on the suitability of the Gila Primitive Area and lands contiguous to it and the present Gila Wilderness for preservation as Wilderness. It contains recommendations for modification of the Gila Wilderness, an existing unit of the National Wilderness Preservation System, to include additional acreage found suitable for preservation as Wilderness. Recommendations for declassification of Gila Primitive Area and present Gila Wilderness portions excluded by the proposed boundary are given in the report. Forest Service proposal changes, recommended following public review of the preliminary proposal, are also described in detail within the report. This reference document has been prepared pursuant to the provisions of the Wilderness Act of 1964 and is hereinafter referred to as the proposal. Many details not included in this environmental statement are available within the referenced report.

Most of the Gila Wilderness and Gila Primitive Area, along with portions of contiguous lands proposed for Wilderness designation, were commonly part of the original Gila Wilderness designated in 1924. This designation, occurring nearly 50 years ago, was the first of its kind. Boundary adjustments were made in 1930, reducing the original acreage. On June 8, 1933, the entire area was converted to Primitive Area status with the portion east of the North Star Road corridor becoming the Black Range Primitive Area and the portion to the west becoming the Gila Primitive Area. This was done under Secretary of Agriculture's Regulation L-20. Minor adjustments of the Gila Primitive Area followed in 1936. The Gila Primitive Area was redesignated as the Gila Wilderness containing 566,474 net acres in 1938. A portion of the Wilderness with fluorspar deposits, contiguous to the present Wilderness where the Gila River leaves the area, was excluded during 1944 to make these critically needed mineral deposits readily available for production.

Reclassification again took place on January 15, 1953, forming a 437,870 net acre Gila Wilderness and a 134,147 net acre Gila Primitive Area, under authority of Secretary of Agriculture's Regulation U-1. Subsequent exclusions were the extension of the road corridor to the Cliff Dwellings National Monument of the National Park Service, approved July 15, 1957, and transfer of 320 acres to the National Park Service for Monument expansion,

approved April 17, 1962. The Gila Wilderness became a legislative unit of the National Wilderness Preservation System with passage of the Wilderness Act, Public Law 88-577, on September 3, 1964. The Act requires congressional approval to designate as Wilderness any area now classified as Primitive or any contiguous lands found suitable as Wilderness. Declassification from Primitive Area or Wilderness classification requires similar approval.

The Gila Wilderness, existing and proposed, and the Gila Primitive Area are entirely within the Gila National Forest, Southwestern Region, State of New Mexico. The Primitive Area lies in 11 separate tracts contiguous to and partially surrounding the present Wilderness. The largest segment is east of the road corridor for New Mexico State Highway 15 to the Cliff Dwellings National Monument and south of the present Wilderness boundary between the Gila River Middle Fork and Tommy Hill Canyon. The smallest segment, contiguous to the southwestern edge of the present Wilderness, contains less than 560 net acres. The revised Forest Service Gila Wilderness proposal recommends 543,474 net acres of National Forest land for Wilderness designation. The entire area lies west of the Continental Divide. The Mogollon Mountains and headwaters of the Gila River are major land features. Location with respect to the closest New Mexico towns is 25 miles north of Silver City, 3 miles east of Glenwood, 44 miles south of Reserve, and 22 miles northwest of Mimbres. There are 313,854 net acres within Catron County and 229,620 acres within Grant County, with the county line dividing the area in an east-west direction.

The proposed Wilderness includes an unusually wide variety of terrain features, elevation, and associated climatic conditions. High elevation central mountainous country is cut by deep, rocky canyons. Surrounding country contains a mixture of sharp ridges, long, narrow mesas, steep mountain fronts, and rolling terrain with a limited amount of open grass country. Throughout the area, "box canyons," rock escarpments, talus slopes, and rock formations of varied shapes are plentiful. A range of over 6,000 feet in elevation provides representative areas of Hudsonian life zone down through Upper Sonoran life zone, supporting an array of plant and animal life unique for a single unit of wilderness. The rugged beauty of this area, its opportunities for solitude, its offer of challenging experiences, and its opportunities for scientific study can provide visitors with ample isolation from the stresses of modern civilization and the necessary setting for gaining spiritual refreshment.

Physical resources and management considerations of the proposed Gila Wilderness are not described or evaluated within this statement. However, a complete description and discussion of these items are included within the previously described document, A Proposal, Gila Wilderness, Gila National Forest, New Mexico. This document accompanies this final environmental statement for easy reference to information and the proposal map which it contains.

The U. S. Geological Survey and U. S. Bureau of Mines conducted their field survey of the Wilderness, Primitive Area, and contiguous lands between 1968 and 1971. Their findings are not yet available in bulletin form, but report material is open-filed at several locations. The official summary statement reporting USGS and USBM mineral study findings is also presented in the proposal document.

Following over 7 years of examination and study of the Gila Primitive Area and contiguous lands, a proposal for a Gila Wilderness with 514,678 net acres of National Forest land and 610 acres of included private land was prepared and given public distribution in brochure form. Public hearings were held in Silver City and Albuquerque, New Mexico, on December 15 and 16, 1972, respectively. The hearing record was held open until January 17, 1973, for the submission of written statements. An analysis of public response to the Gila Wilderness proposal was completed during April 1973. As a result of this analysis and additional study of previously excluded lands, the Forest Service recommended that 28,924 net acres of National Forest land and an included 80-acre tract of private land be added to the original Wilderness proposal.

Recommended additions include 16,196 net acres of Primitive Area and 69 net acres of present Wilderness, formerly proposed for declassification, and 12,659 net acres of unclassified contiguous additions. Adjustments are also recommended excluding 54 net acres of present Gila Wilderness, 42 net acres of Gila Primitive Area, and 32 net acres of contiguous additions from the proposal. The resulting Forest Service proposed Wilderness contains 543,474 net acres of National Forest land and 690 acres of included private land. Description and reasons for these recommended changes are not given here, but are located in the companion final proposal document.

II. Environmental Impacts

Legislative definition of Wilderness is, "an area where the earth and its community of life are untrammelled by man." Gila Wilderness

designation, as proposed by the Forest Service for congressional consideration, would not result in any significant change in present impacts on the physical environment. Of the 543,474 acres proposed for Wilderness, 427,826 acres are already existing Gila Wilderness and would be unaffected by this proposal. An additional 86,528 acres of the proposed Wilderness have been under wilderness-type management as the Gila Primitive Area and have, since 1924, experienced this type management or actual management as Wilderness. Wilderness designation at this time would perpetuate this type of management and extend it to 29,120 acres of contiguous land with quality wilderness characteristics. These lands have generally remained as Wilderness because of the rugged terrain or topographic barriers, preventing easy access of mechanized equipment.

Proposed reclassification would remove Primitive Area status from 49,450 net acres bearing substantial imprint of man and his activities. An additional 1,680 net acres of the present Gila Wilderness are also proposed for declassification. This is for the purpose of either providing a Wilderness boundary more consistently on identifiable land features, or excluding small areas near the present Wilderness boundary that have lost their wilderness characteristics through the activities of man.

Natural ecological succession would be allowed to occur to the fullest extent possible in the proposed Wilderness, subject to activities and practices authorized by the Wilderness Act. The area would be available for human use to an extent consistent with maintenance and protection of the wilderness resource. Management as Wilderness would naturally provide environmentally superior protection of this large land area from water, air, and noise pollution, commonly associated with development and man's mechanized activities. Wilderness management would be within the scope of the Multiple Use-Sustained Yield Act of 1960, which fully recognizes that designation of areas of National Forest land for Wilderness is compatible with the concepts of multiple use and sustained yield.

The portions of Primitive Area and Wilderness proposed for declassification would be available for consumptive resource use within the confines of properly executed multiple use management. Included would be harvest of operable timber and possible recreation development with associated access routes for these uses. However, the availability of either operable timber or recreation sites suitable for development, within these areas recommended for declassification, is extremely

limited. Additional range improvements and watershed restoration work on deteriorated watersheds, within areas proposed for declassification, could be applied to meet present and future needs. This work could be accomplished within the framework of proper multiple use management, using mechanized equipment where it would be environmentally sound to do so. Resulting improvement in range condition would not necessarily allow increases in grazing use.

Changes in the environment within a Wilderness are usually subtle compared to an area where man and his work dominate the landscape. Wilderness designation does not preclude environmental impacts entirely. Environmental impacts of Wilderness classification may be beneficial, detrimental, or both. The following recognized impacts in some cases have a combined effect on social, physical, biological, and economic factors of the environment.

- A. There are renewable and nonrenewable resources which are completely denied or partially withheld from consumptive use as a result of Wilderness designation. Those partially withheld are generally accepted resource uses as provided for in the Wilderness Act.
 - 1. The majority of wood fiber that would otherwise be available for harvest from the proposed Wilderness lies within presently classified Wilderness or Primitive Area and has not been included in the sustained yield flow for the Forest. With Wilderness classification, this situation would remain unchanged. An estimated volume of 10.4 million board feet of operable wood fiber, included in previously unclassified additions, are proposed for withdrawal from the productive base for sustained yield management. Anticipated impact on available raw material, associated employment and services, and consumptive manufactured product output would be slight. An additional 5.3 million board feet of wood fiber would be added to the productive base for sustained yield management as a result of proposed declassification of existing Wilderness and Primitive Area lands.
 - 2. Modification of plant cover and treatment of soil mantles to provide increased quantity of water yield or control of runoff will generally not be possible in this area even without Wilderness classification. Primitive Area

and unclassified lands proposed for Wilderness classification, not including present Wilderness, have an estimated average annual yield of 20,000 acre-feet of water. Possible yield increase is severely limited by area soil types and topography.

3. New water regulating structures, power installations, and related improvements within Wildernesses are subject to approval by the President as stipulated in the Wilderness Act. Opportunities do exist for hydroelectric power developments and water conservation and storage projects along the main Gila River. However, only the Hooker Dam site on the Gila River, located 1/2 mile from the Forest Service proposed Wilderness, has exceeded initial planning stages. The Central Arizona Project of the U. S. Bureau of Reclamation, of which Hooker Dam is a part, has been authorized by Public Law 90-537. Alternate sites for dam construction within the proposed Wilderness have apparently been deleted from further consideration. Construction of a dam at the Hooker site is not an absolute certainty, even though the parent project has been approved. The Central Arizona Project has not been funded, and the Conner Site further down river from the Hooker site remains a possible alternative. Construction of a dam at the Hooker site would create a reservoir that would flood portions of the proposed Wilderness along the Gila River and Turkey Creek, a main northern tributary. A maximum 520 acres of the proposed Wilderness would be flooded, provided the dam is built at the Hooker site to proposed specifications, and provided the reservoir would fill to maximum level. Some concern has been voiced that the proposed Wilderness may cause delays in funding or initiation of the Hooker project. Flooding of this portion of the proposed Wilderness, with Presidential approval, would be within the scope of the Wilderness Act. Wilderness designation as proposed could possibly cause some delay in project construction.
4. Proposed Wilderness designation could affect future weather modification projects, such as cloud seeding, although none are planned at this time. Projects of this type that may have a significant impact on wilderness ecology could be contrary to the Wilderness Act. Current research and study of the effect of weather modification on the environment, at other locations in the country, should yield information that will be helpful in determining the relationship between such projects and Wilderness.

5. Wilderness is an area retaining its primeval character and influence and preservation of its natural conditions. Wildlife habitat will not be manipulated within the proposed Wilderness. Populations of large and small game animals, birds, and fish will be allowed to fluctuate without being sustained to insure maximum production for man's recreational pursuits. Examples of management to be foregone are the modification of vegetative cover, fertilization for plant cover improvement, and improvements for wildlife water control or development. Possibilities of such projects would exist without Wilderness designation. However, there has been no assessment of the number or types of projects feasible due mainly to existing Wilderness restrictions covering a large percentage of the proposed Wilderness. Insuring the survival of rare or endangered species or overcoming threatened extinction due to unnatural situations are exceptions.
6. The central portion of the proposed Wilderness, amounting to over half of the entire area, and mostly within the existing Wilderness, is and will remain unobligated for cattle grazing. This area does receive grazing use by pack and saddle stock. Cattle graze other portions of the proposed Wilderness under permit. This consumptive use of the forage resource will continue under the provisions of the law and Secretary of Agriculture's regulations. Management practices commonly applied, outside of classified areas, will need to be modified for wilderness use to insure perpetuation of an enduring wilderness resource.

Only those range improvements compatible with wilderness values will be permitted. Methods of developing permitted improvements in harmony with the wilderness resource may require the use of old skills, now almost forgotten in this mechanized age.

Range suitability for grazing use could possibly be improved without Wilderness designation, but it is doubtful if improvement would allow increased levels of stocking or grazing use.

Competition for forage between cattle and visitors' pack and saddle stock is already apparent at isolated locations and can be expected to increase with increased Wilderness visitation. Modifications in the use of recreation livestock or reduction of cattle numbers are realistic problems of the future that could create economic impact.

7. Controls to limit visitor use of the proposed Wilderness may be needed in the future after capacities for use are determined. The existing Gila Wilderness has already experienced widespread acclaim and recognition. Reclassification and proposed revision of boundaries to include more acreage will no doubt attract additional persons to the area. Adverse human and recreation livestock impacts such as trampling of vegetation, loss of solitude, fewer sightings of wildlife, and increased evidence of use could become problems. Such situations must be avoided to protect the wilderness resource. Controls over use can provide necessary preventative action to offset adverse impacts. Cost of these controls would be in excess of present administrative costs, but would not exceed the estimated costs of administering developed recreation, an alternative that could occur without Wilderness designation.
8. The proposed Wilderness will be open for mineral exploration and location of claims until December 31, 1983. After that date, only existing valid claims may be developed. Mineral resources, if not located and claimed by December 31, 1983, would remain undeveloped. This could have an adverse impact on National social needs and economic benefits. Wilderness mining regulations already apply to that portion of the proposed Wilderness existing as the Gila Wilderness and lands presently classified as Gila Primitive Area. Wilderness designation does not preclude the patenting of mining claims, even though the United States retains title to surface rights. Additional regulations of the Secretary of Agriculture, designed to carry out the provisions of the Wilderness Act, place restrictions on exploration, prospecting, and mineral extraction and removal activities within designated Wilderness. These restrictions require notification of claim establishment, notification of operation or development intent, advanced approval for use of motorized equipment, limitations on road construction and mechanical means of transportation, and required restoration of wilderness values following activity termination. Permits to remove "common variety" materials are foregone with Wilderness designation.

Past prospecting and mining activities within the proposed Wilderness have been mainly along the west and southwest boundaries of the area and in the Alum Mountain-Copperas Canyon area. There are many mining claims within the area,

including 10 patented claims. Past mineral production from the proposed Wilderness has been small, with higher production value from areas immediately outside of the area. Despite the small past mineral production, limited portions of the proposed Wilderness have better than average potential for base and precious metal deposits in addition to fluorspar. An additional potential is represented by the possibility of concealed deposits beneath the surface volcanic rock. However, more than 95 percent of the proposed Wilderness lacks evidence of important mineral resource potential in the exposed rock. There is no significant potential for mineral fuel resource, but a possible geothermal energy resource remains virtually unexplored.

Past attempts of mineral location and extraction appear to have been extremely limited by insufficient concentrated volumes of quality mineral materials and extremely difficult access. Even without Wilderness designation, these factors would have an effect on the future of mineral production from this area. Past prospecting and mining activities have not had an adverse physical or biological impact on other resources of the proposed Wilderness, but increased future activity could create problem situations.

9. Wilderness designation may impose a slight degree of limitation on the possible variety of available outdoor recreation opportunities and freedom of choice. This situation would be true only for portions of Gila Primitive Area and contiguous additions proposed for Wilderness designation. With few exceptions, the proposed Wilderness is best suited for primitive-type visitor experiences commonly associated with Wilderness. However, possibilities for development exist at perhaps six isolated locations, involving a total of several thousand acres, which could not be utilized with Wilderness designation. Future demands for nonprimitive forms of outdoor recreation, not provided because of Wilderness designation, can easily be shifted to other locations on the Forest more adaptable to this type of use. A sufficiently large inventory of alternate locations for developed site recreation, outside of Wilderness, is available to sustain only minimal impact on alternate locations for at least the next decade. Wilderness designation of the proposed lands will help complete the full spectrum of outdoor activity opportunities needed on a National basis, even though this type of opportunity may be considered by some as already locally abundant.

10. Wilderness designation and management allow escape from many of the environmental risks often associated with development and use of the natural resources. Abundant examples exist of unexpected environmental catastrophies triggered by man's development activities. This proposal provides greater flexibility for future generations to maintain a desirable and necessary environment.
- B. Some of the environmental impacts of this proposal are intangible and not easily quantified. Although a number of these impacts are based on known facts, others are dependent not only upon Wilderness designation, but also upon other factors with unpredictable occurrence.
1. Wilderness visitors are motivated by a need to escape from the stress of a highly complex urban existence. They are drawn by the positive attraction of natural beauty in an undisturbed state. Designation of this area as Wilderness will help provide places, in addition to those already available, where man can fulfill these motivational needs. Unfulfilled motivational needs can create adverse social impacts within a society.
 2. The natural environment preserved as Wilderness provides a unique opportunity for man to improve his knowledge and gain a better understanding of his world through scientific research. Such research can benefit all mankind by revealing the limits within which man can live without destroying his environment. Through Wilderness preservation, large natural ecosystems will remain intact providing a biological benchmark for ecological studies that can provide significant answers when we learn to ask the right questions.
- Types of research compatible with Wilderness would be limited to those generally not involving motorized equipment and permanent structures or installations. Certain research projects, such as mechanical vegetative manipulation, are definitely incompatible with the wilderness resource.
3. Wilderness designation precludes motorized access by visitors, a basic need for large portions of the present population. For those desiring to use mechanical equipment as a means of transportation to visit and use this area, Wilderness designation will eliminate this possibility.

4. Wilderness designation will generally preclude a variety of improvements and activities that are incompatible with a primitive, undeveloped environment. Examples are listed even though such projects are not presently planned and may never be conceived. Institutions, organizations, and government agencies seeking to construct radio communication facilities and other electronic installations, observatory sites, recording instrument sites requiring a power source, cabins, roads, power transmission lines, fuel and water pipelines, airfields, highway transportation systems, and recreation developments will be required to locate these projects or facilities elsewhere. Use of alternate sites may, in some cases, result in adverse economic impacts, being generally accompanied by beneficial social and biological effects.
5. A limited number of aspects associated with natural and primitive environment are not beneficial to man. The effects of the forces of nature, such as wind, water, soil and rock movement, fire, insects, and plant and animal diseases, may be detrimental to an area where man does not offset the damages through preventative or corrective management measures. Management of Wilderness for a natural environment may yield natural occurrences of insect epidemics, wildfire, plant diseases, or similar natural events. Such events are generally acceptable if confined within the Wilderness, and precautions must be applied to prevent detrimental natural occurrences from affecting areas outside of the Wilderness which are managed for other resources. On non-Wilderness lands, prevention or restoration measures can be taken. Inside Wilderness, restoration is usually left to the slow healing process of nature. This generally precludes flood control structures, stream improvement structures, and restoration following wildfires within Wilderness.

Within Wilderness, man is on his own in coping with natural occurrences he may encounter, rather than being given sheltering protection from the forces of nature available to some extent outside of Wilderness.

6. Disruptions or modification of natural Gila Wilderness ecosystems is possible as a result of man's influence. Disruption and reestablishment of wildlife communities, compaction of soil, vegetative damage, changes in water tables, and the threat of water pollution as a result of activity by man and livestock are potential threats to natural ecosystems. All Wilderness ecosystems, and especially the more fragile ones, must be protected and perpetuated.

7. Hunting and fishing activities, development of resources, competition between livestock and wildlife, and the mere presence of man can be detrimental to existing forms of plant and animal life inhabiting the proposed Wilderness.
8. The uncontrolled activities of man visiting the proposed Gila Wilderness could lead to various forms of pollution. Examples are: water pollution by improper human sanitation and lack of livestock control; air pollution from campfires; uncontrolled wildfires; excessive trail use during dry, dusty periods; noise pollution from various sources such as overcrowded use conditions and low-flying aircraft; and visual pollution from littering and frequent encounters with man and his livestock. To maintain necessary high standards required for Wilderness, additional administrative costs for detection of developing situations and enforcement of protective regulations will be necessary if Wilderness is designated as proposed.
9. Additional administrative costs of on-the-ground boundary delineation, boundary posting, and placement of some physical barriers can be expected as a result of post-hearing additions to the Forest Service Wilderness proposal. The originally proposed Wilderness incorporated strong topographic features that could easily be located on the ground and that offered protection against motor vehicle entry. Many recommended post-hearing additions would create a proposed Wilderness boundary without reliable topographic features and penetrable by motorized vehicles. These segments would need a high degree of line posting, some physical barrier work, and a greater degree of patrolling than would have been originally required.
10. There are more than 25 species of threatened, endangered, peripheral unique, or status undetermined wildlife that may live in the proposed Wilderness. These include the spotted bat, American peregrine falcon, Mexican duck, and bald eagle; and many of these species require a wilderness-type habitat to survive. The presence of man in increasing numbers and man's management of resource use activities, especially if the area is not designated as Wilderness, could adversely affect these species. Conversely, these same species are not totally dependent for livelihood on those areas proposed for declassification.

The National Register of Historic Places has been consulted, and there are no registered historic places within the proposed Wilderness or lands recommended for declassification. The Gila Cliff Dwellings National Monument, which adjoins the proposed Wilderness, is listed on the National Register.

III. Favorable Environmental Effects

Wilderness designation, as proposed, would preserve an enduring resource of wilderness, not only within the existing Gila Wilderness, but for surrounding lands with a long history of similar management. This preserved wilderness resource would be available for present and future generations to enjoy. The primeval character of the area would be retained for all time. The social, economic, and environmental effects of wilderness resource preservation are not easily assigned degrees of value. Many of these effects of Wilderness designation are somewhat abstract rather than concrete, requiring a subjective approach. The following positive values are recognized.

- A. The proposal will provide for an immense, living, outdoor laboratory for the study of the forces of nature. Ecological benchmarks of plant and animal life and undisturbed geological landform will be available to provide valuable scientific and educational benefits to man, who continually and increasingly relates himself to his environment.
- B. Wilderness, little influenced by man, provides a natural habitat for the biota, thus propagating many species dependent upon this kind of environment. It provides as near-natural an environment for the dynamic process of evolution and the natural ecological balance of life systems as can be found anywhere in America today. Without Wilderness, important ecosystems of limited quantity may cease to exist.
- C. The area will remain undeveloped and enjoyed as wilderness as a reminder of early America. Man, with his increasing population, expanding settlement, and growing mechanization, will not occupy or modify it.
- D. The relatively undisturbed soil mantle represented in this proposed Wilderness is generally conducive to production of quality water yield so important in the arid Southwest. This quality water yield will be maintained with Wilderness designation.

- E. Increased Wilderness visitation will cause a related increase in demand for local area services and goods attendant to this activity. Increased demand for services and goods by Wilderness users would have a beneficial effect on the economic environment of surrounding communities.
- F. Wilderness will complement the wide range of outdoor recreation opportunities presently available. Designation will have little effect regionally upon providing adequate outdoor recreation activities of nonwilderness varieties; and public needs and demands for developed or back country recreation opportunities can be satisfied at other locations.
- G. Man will be given additional opportunities to escape the coddling of civilization. The mental, physical, and esthetic values of his relationship with the earth's flora, fauna, climates, and landforms can be challenged and experienced with little reminder of the intensity and complexity of the modern life with which he normally is associated. The challenges which the Wilderness offers its visitors will encourage preservation and development of the pioneer attitudes which are widely believed to have contributed greatly to this Nation's success.
- H. Public motivation for wilderness use is widely believed to be obtained through learning rather than being inherent. With increased public education levels, increasing proportions of the public will learn of wilderness-use motivation from each other, from contact with wilderness environments, and from conservationist organizations and resource management agencies. Increased wilderness-use motivation will make preserved wilderness environment even more valuable. There is a great deal to be learned by students of this and future generations that can only be obtained with the availability of wilderness for first-hand personal experience.
- I. Wilderness is the true heritage of mankind, and the need for wilderness experience is part of our genetic endowment.
- J. Wilderness classification conserves several types of natural resources by reserving these resources. Minerals in Wilderness, if not exploited, will not disappear or become lost, but will be reserved for future generations or until such time when they may be more critically needed than at present.

IV. Adverse Environmental Effects Which Cannot be Avoided

Wilderness designation will result in some adverse environmental impacts. These are generally associated with the economic aspects of life, but may also have adverse social and biological implications. The total physical environment should be relatively unaffected by the classification of the proposed area as Wilderness. Minor adverse local economic effects would be expected to result from Wilderness classification. Both existing Primitive Area and Wilderness portions of the proposal, amounting to almost 93 percent of the total, are now exempt from resource consumption or uses that are not compatible with wilderness values. Possible future economic gains associated with denied consumptive resource use of the 29,120 acres of contiguous lands proposed as Wilderness would be lost as a result of the proposed action. However, consumptive resource use within the proposed additions is, in most cases, limited by topography and lack of feasible access routes. These are restrictive factors which have prevented exploitation and effectively preserved wilderness characteristics.

- A. Proposed Wilderness designation will legally exclude future possibilities of motorized travel access for recreation purposes into those areas presently unclassified, and this limitation will be continued for the balance of the proposed Wilderness. Segments of the general public dependent upon motorized travel for recreation experiences will be obligated to seek such experiences elsewhere. Existing areas capable of accommodating this type of recreation use remain far from reaching optimum levels of use. This situation is true for the Gila National Forest and many other public lands in this general area.
- B. Constraints of the Wilderness Act prohibit permanent recreation improvements. Many persons have become dependent upon recreation improvements as an important part of their outdoor experience. Facilities designed to accommodate developed site recreation, complete with comfort and convenience items, will be foregone with Wilderness designation of contiguous lands. This restriction will remain in effect on Wilderness and Primitive Area lands within the proposed Wilderness. People unable to meet the challenges of Wilderness, but seeking developed site recreation experiences, will need to continue to use existing areas outside of Wilderness, along with future developments as they become available for use.

- C. The human carrying capacity of Wilderness is relatively low compared to areas of similar size developed for recreation use. As Wilderness use increases, restrictions and controls over use will become necessary to perpetuate the wilderness resource. The mere presence of controls often removes the freedom of movement of the user and must be considered as an adverse social impact.
- D. There is a risk that natural events, which are a vital part of wilderness, cannot be contained within the area boundary. For example, insect epidemics are natural events within the wilderness; but such events are not desirable on contiguous lands managed for timber production. The probability of such occurrences is low for the proposed Gila Wilderness as indicated by past history of the area. Restoration of future flood damage within the proposed Wilderness will be left to the healing process of nature. Siltation now occurs at some locations within the Wilderness during spring runoff and following heavy rainstorms, but this situation is more a result of natural geologic erosion than accelerated erosion from areas where soil cover has been disturbed by man.
- E. Some forms of research, incompatible with wilderness values, have been denied in the past within the existing Wilderness and Primitive Area. This limitation would continue to apply to these same lands and be extended to contiguous additions with proposed Wilderness designation. Incompatible research projects would have to be programed elsewhere or will need modification to avoid use of motorized equipment and permanent installations or structures.
- F. Projects representing modern technology and progress for man's benefit (social and economic) may be incompatible with Wilderness. Any permanent facility or improvement and activity that is not allowed for in the Wilderness Act must be foregone within the proposed Wilderness, just as it has presently been within the existing Wilderness and Primitive Area. Examples of incompatible projects are future highways, transmission lines, electronic sites, and other development type projects. There are no plans at present or in the foreseeable future for these kinds of projects within the area proposed as Wilderness. However, if the Wilderness designation did not exist or were to be removed, the lands involved would perhaps be more attractive for this type of project.
- G. The proposed Wilderness would be open to mineral entry until December 31, 1983. Mineral entry will be foregone after that date. Restrictions necessary for maintaining a wilderness

environment will be necessary for all exploration and extraction of minerals on valid claims. This would increase the cost of development which would reduce contributions to the total public needs and demands.

- H. There is some degree of pollution of air, visual values, and especially water within designated Wilderness. Although the degree of pollution would no doubt be considerably less than that which may occur under alternate forms of management, the problem does exist. Administrative controls over improper human and recreation livestock sanitation, littering, and man-caused fires are more difficult and costly to apply than in areas of nonwilderness.
- I. Water development projects for water regulation or power production within Wilderness require Presidential approval. The proposed Hooker Dam would create a reservoir that would back water into the proposed Wilderness, as previously described. The Central Arizona Project of the Bureau of Reclamation, of which Hooker Dam is a part, has been authorized as Public Law 90-537. This authorization applies to Hooker Dam or a suitable alternative. Until such time as Hooker Dam is specifically funded for construction, the options for an alternate site or abandonment of this part of the Central Arizona Project remain possibilities. Because of the strong opposition to Hooker Dam and its reservoir by many conservationist groups, there is a good possibility of delays in actual construction. This situation would probably exist regardless of the proposed Wilderness relationship. Present Wilderness lands, along with Primitive Area lands and unclassified National Forest lands, all suggested by conservation groups as being suitable for proposed Wilderness inclusion, are within the area that would be affected by Hooker Dam. Until the question of what lands are to be included within the proposed Wilderness is resolved by Congress, it is doubtful if this project could possibly move ahead to a construction stage.
- J. Range improvement structures for support of grazing use will be limited to those construction styles compatible with the wilderness resource and requiring the additional qualification that such improvements must be necessary for maintaining or perpetuating the wilderness resource. Restrictions over allowable range improvements will impose economic impacts on Wilderness grazing operations.

- K. A minor economic value from timber harvest will be foregone under this Wilderness proposal. Major portions of the proposal are currently withheld from sustained yield flow due to Primitive Area or Wilderness classification.
- L. Some wildlife species and wildlife habitat may be adversely affected. It would not be possible to develop wildlife habitat for maximum production of wildlife. Proper harvest of game species may be impeded by vehicular access prohibition. Reintroduction of some species of fish and wildlife would be more difficult by primitive means of transportation.

Declassification of 49,450 acres of Gila Primitive Area and 1,680 acres of Gila Wilderness would alter or remove restriction on consumptive use of certain resources supported by these areas. Availability of resources for consumptive use would be limited or controlled as on similar unclassified National Forest land. Multiple use management decisions, applied in the best interest of overall management of these lands and their resources, would prevent unrestricted use of most resources.

Some possible adverse impacts of declassification are:

- A. Existing wilderness characteristics possessed by isolated segments of the areas proposed for declassification could be lost through consumptive resource use.
- B. The physical impact of certain consumptive resource uses, such as timber harvest, motorized recreation vehicle use, increased mineral prospecting activity with motorized equipment, and the construction of range improvements with motorized equipment, could be potentially damaging to other resources at many locations throughout these areas (i.e., natural beauty, wildlife, soils, or watershed).
- C. Access to portions of the Primitive Area proposed for Wilderness classification would cause increased travel distance from existing trailheads to the Wilderness boundary, through country no longer Wilderness as a result of this proposed declassification. Due to increased travel distance to reach the Wilderness boundary on trails through declassified lands, those seeking a wilderness experience may be discouraged from using these trails. Thus, increased use at other Wilderness trail entrance points, with short travel distance to the Wilderness, would probably result.

- D. The area proposed for declassification will not yield consumptive resources in proportion to its size due to topographic limitations and soil incapacibilities. Therefore, a false public image of possible economic gains through declassification may result.
- E. The risk of man-caused fires would be increased as a result of consumptive resource use. Fire hazard could be expected to fluctuate with timber sale activities.
- F. Following declassification of Primitive Area or Wilderness, the risk of air, water, visual, and noise pollution would be increased because of the associated possibility of consumptive resource use and associated developments or improvements.
- G. Declassification as recommended in the Forest Service Wilderness proposal will create an additional administrative burden through abandonment of existing classified area boundary. Fences, classified area boundary signs, and traffic barriers at some locations will need to be completely removed or relocated. Removal of these improvements would need to be accomplished soon after proposed declassification received final approval.

V. Alternatives to the Proposed Action

The decision to designate Wilderness on National Forest lands must be a truly basic multiple use decision. The principal factors which must be evaluated are: All resources, alternatives of land management potentials, consequences of each alternative, recognition of social and economic values, values to be foregone, and environmental impacts. Many of the alternatives described were offered or supported by government agencies, organizations, groups, or individuals through the process of public involvement, thus expanding the original listing of alternatives appearing in the draft environmental statement for this proposal.

A total of nine alternatives to the Forest Service proposed Wilderness have been examined. They are:

- A. Declassification of the Gila Primitive Area and retention of the present Gila Wilderness with existing boundaries.
- B. Declassification of most Primitive Area lands and adjustment of the present Gila Wilderness boundary to suitable topographic features with a minimum inclusion of Primitive Area and contiguous lands.

- C. Acceptance of the original Forest Service proposed Wilderness as presented in the draft environmental statement and public brochure and as presented at public hearings during December 1972.
- D. Acceptance of the Forest Service proposed Wilderness, except for exclusion of lands that would be inundated or otherwise influenced by the reservoir that Hooker Dam would create.
- E. Acceptance of the Forest Service proposed Wilderness with exclusion of lands that would be inundated by Hooker Dam reservoir, and all proposed Wilderness lands located north-east of the Middle Fork of the Gila River.
- F. Designation of a Gila Wilderness excluding all lands of the Forest Service proposed Wilderness having a good possibility of mineralization as indicated by the USGS-USBM mineral study.
- G. Designation of a Gila Wilderness larger than that proposed by the Forest Service, containing 613,938 net acres as suggested by the Joint Conservationist proposal or any of the suggested intermediate proposals.
- H. Designation of a Gila Wilderness differing from the Forest Service proposal because of exclusion of all Primitive Area and contiguous lands located south and east of the present Wilderness boundary between Tommy Hill Canyon and the Gila River Middle Fork, and Primitive Area lands that would be inundated or otherwise influenced by Hooker Dam reservoir.
- I. No action by Congress regarding either the Primitive Area, Wilderness, or both classified areas.

The declassification of both the Gila Primitive Area and existing Gila Wilderness was not considered as a legitimate alternative. The existing Gila Wilderness is an established unit of the National Wilderness Preservation System, authorized by law and accepted by Congress.

A brief analysis of each alternative follows:

Alternative A

Declassify the Gila Primitive Area and retain the Gila Wilderness with existing boundaries.

The entire Gila Primitive Area might be formally declassified by Congress, leaving the Gila Wilderness boundary at its present

location. Thereafter, wilderness-type management for the Primitive Area would cease; and this area could be developed, managed, and used as other unclassified National Forest land according to public needs and availability of resources.

Declassification would remove from Primitive Area status a total of approximately 17,061 acres of timbered land with an estimated volume of 30.6 million board feet of operable commercial timber. However, no more than 30 percent of the residual stand of operable timber would be readily available for consumption. The gross product worth of operable timber volume within the Primitive Area is estimated to be \$5,500,000. Portions of the commercial timber that would be made available by Primitive Area declassification are located in rugged country with difficult access for logging. Less than half of the timbered lands are relatively easily accessible for logging. No attempt has been made to determine harvesting and manufacturing costs and "stumpage" value to the United States. There are no operating wood product processing plants in the vicinity now which are dependent on this resource.

Except for about 8 percent of the Gila Primitive Area having no obligation for grazing domestic livestock, the remainder of the area is presently open to grazing of cattle under permit. With declassification, range rehabilitation and improvement work, through vegetative manipulation projects, and provision for a variety of structural range improvements not compatible with Wilderness could be carried out. It is doubtful if such projects would result in allowable increase of livestock use, but it might make it possible to avoid decreasing such use. Restoration of depleted range could be accomplished except where limited by severe topography.

There is little opportunity for water yield improvement with perhaps less than 3,000 acres being suitable for this type of work. The general aridity, severe topography, scoured stream bottoms, and generally poor soils are all limiting factors. Opportunity would exist for sediment control work, and slightly less than half of the Primitive Area would qualify for this type of project. A high percentage of the areas needing sediment control work is included in Primitive Area exclusions of the Forest Service proposal.

Declassification would provide limited opportunities for expanded recreation development. With Primitive Area declassification, several areas suitable for recreation development could be served by access routes. Intensive development would result in a loss of wilderness resource which could not be replaced for this or future generations.

The Mineral Resources Study of the Gila Wilderness and Gila Primitive Area by the United States Bureau of Mines and United States Geological Survey reports that portions of the areas appear to have possible mineralization. Assuming that a good portion of the unpatented mining claims located within the Primitive Area in the Dry Creek, Copperas Peak, Copperas Canyon, and Salt Creek areas are valid claims, over 90 percent of the area is free of claim activity. The entire Primitive Area is covered with several thousand feet of volcanic materials. Value of minerals under the volcanic material is not definitely known. Existing claims are generally located in areas with fracture systems and areas with hydrothermal alteration, both of which could possibly contain mineralization. Declassification of the Primitive Area would possibly attract increased exploration activity. This would permit deep core drilling with less restraint over access and use of motorized equipment. The introduction of a road system could very well induce a more intensive search for economically available ore deposits. Such activities would result in loss of the Wilderness that could not be replaced for this or future generations.

Development, associated with consumptive resource use, would impose additional habitat limitations on indigent species of wildlife requiring wilderness-type country for survival. On the other hand, declassification would make it possible to develop the big game habitat, get more adequate harvest, if necessary, and avoid habitat deterioration from overuse by game should herds increase beyond optimum levels.

Development activities could destroy the wilderness values of this area if it were declassified. Once lost, such values could not be restored. Air, soil, and water pollution would be expected to increase beyond present levels. Loss of the wilderness resource by declassification would have an impact on the social values of this and future generations that would be difficult to appraise.

The resulting size of the proposed Gila Wilderness would be 429,506 net acres, or the same as its present size.

Alternative B

Declassify most Primitive Area lands and adjust present Gila Wilderness boundary to suitable topographic features with a minimum inclusion of Primitive Area and contiguous lands.

With this alternative, most of the Gila Primitive Area would be declassified. In addition to this action, the existing Gila

Wilderness boundary would be adjusted to provide a better boundary location following continuous topographic features along most of its length rather than legal subdivisions. Included within the Wilderness boundary would be small areas of previously unclassified National Forest land and segments of Gila Primitive Area that are contiguous to the existing Gila Wilderness. These inclusions would represent the minimum addition to the existing Gila Wilderness of lands suitable for Wilderness to accomplish the purpose of obtaining a Wilderness boundary based on strong topographic features. Contiguous additions of unclassified National Forest land would, at most locations, be smaller than those proposed by the Forest Service, even though several of the smaller segments would be identical.

A total of at least 1,680 acres of the present Gila Wilderness, the amount recommended in the Forest Service proposal, would be declassified by this action. Additional portions of existing Wilderness may also need to be declassified at some locations along the Wilderness boundary suggested in this alternative. These locations would be where contiguous Gila Primitive Area lands included in the Forest Service proposed Wilderness would be excluded in this alternative. This situation is entirely dependent upon topographic features available for boundary location and whether such features lie within or outside of the existing Wilderness boundary. At some locations, the optimum topographic features to use for the Gila Wilderness boundary would be within the existing Wilderness. The resulting Gila Wilderness size, as recommended in this alternative, is estimated to be about 440,000 acres, or 10,000 acres larger than that recommended by Alternative A. No acreage figure or exact boundary location was offered by those supporting this alternative.

Social, economic, and biological impacts of this alternative would be almost identical to those of Alternative A, even though the Wilderness size would be approximately 10,000 acres larger. Presently classified lands recommended for declassification would be similar in acreage. The additional declassification of some existing Wilderness would be balanced by the inclusion of some contiguous Primitive Area lands, neither of which have operable timber of any significance or major resource differences. A portion of the contiguous unclassified lands considered in this alternative does have operable timber at scattered locations with an estimated volume of 1.7 million board feet. The gross product worth of this volume, that would not be available for consumption, would be \$300,000. The situation regarding grazing of domestic livestock, possible range improvement, water yield

improvement, recreation development, loss of wilderness resource, and possible damage to soil, water, and natural beauty resources would be the same as for Alternative A. Contiguous lands along the western and southwestern edges of the existing Wilderness which may have a mineral resource of economic value are included in the Gila Wilderness suggested by this alternative.

Alternative C

Accept original Forest Service proposal.

The original Forest Service Gila Wilderness proposal recommends a Wilderness with 514,678 acres of National Forest land, composed of 427,811 acres of existing Wilderness and 70,374 acres of Primitive Area, plus 16,493 acres of contiguous National Forest land suitable as Wilderness. Also recommended as a part of this proposal was declassification of 65,604 acres of the Gila Primitive Area and 1,695 acres of the existing Gila Wilderness. This proposal and its environmental impacts were fully presented in the original brochure, A Proposal-Gila Wilderness, Gila National Forest, New Mexico, and the draft environmental statement which accompanied it. Adjustments in the Forest Service proposal have added 28,796 net acres of National Forest land to the original Forest Service proposed Wilderness, thus making the initial proposal an alternative.

Many factors requiring evaluation for this alternative, such as a portion of values to be foregone, social and economic values, and environmental impacts, are primarily the same as for the adjusted Forest Service Wilderness proposal as described in this statement. Some values to be foregone and impacts upon social and economic environments are slightly different than that of the adjusted Forest Service proposal. An estimated 10.4 million board feet of wood fiber with an estimated gross product worth of \$1,872,000, contained in contiguous additions, would be withdrawn from the productive base for sustained yield management as a result of the adjusted Forest Service proposal. Operable volume to be withdrawn from the sustained yield base in contiguous additions of the original Forest Service proposal would be 2.8 million board feet of wood fiber with an estimated gross product worth of \$504,000, having significantly less social and economic impact. This alternative would release an operable volume of 6.6 million board feet of wood fiber, contained on Primitive Area lands proposed for declassification, to be added to the productive base for sustained yield management. The estimated gross product worth of this volume is \$1,188,000, but only a small percentage of this

total would be solvent for bolstering social and economic well-being because of limitations on resource consumption imposed by proper multiple use management. Primitive Area lands of the adjusted Forest Service Wilderness proposal, recommended for declassification, contain 5.3 million board feet of operable wood fiber with an estimated gross product worth of \$954,000.

The timber resource and its availability for consumptive use is the main difference between the original and adjusted Forest Service proposals. Other resource uses and environmental impacts would be essentially the same with either the adjusted or original proposal.

Alternative D

Accept original Forest Service proposal, but delete lands impacted by proposed Hooker Dam and reservoir.

This alternative provides for designation of a Gila Wilderness with essentially the same boundary as the Forest Service proposed Wilderness. The only exception would be recommended exclusion of proposed Wilderness lands along Turkey Creek and the main Gila River that would be inundated or otherwise influenced by the reservoir that Hooker Dam would create.

There is a considerable number of uncertainties associated with this alternative. Even though the Central Arizona Project, of which Hooker Dam is a part, has been approved, the possibility exists that the Hooker site would not be utilized. In this event, the proposed exclusion of this alternative would be of no value to those supporting it, not to mention the unnecessary loss of wilderness resource. With the construction of Hooker Dam, outside of the Forest Service proposed Wilderness, it is difficult to predict how much of the area proposed as Wilderness would ever be inundated by reservoir waters. Water conservation and maximum flood control pool levels of the proposed dam are too uncertain at this time to provide basis for Wilderness exclusion. Public enjoyment of these lands, as Wilderness, would be prematurely lessened by removal of Wilderness designation.

Exclusion of these lands that would be inundated by Hooker Dam reservoir would supposedly lead to unhampered funding and construction of Hooker Dam and resulting social and economic benefits to downstream water users and others concerned. This may not be the case by any means, since these lands and others outside of the Forest Service proposed Wilderness are also

included in the Joint Conservationist group Wilderness proposal (Alternative G). Therefore, these lands, just as any other candidate area for Wilderness, are afforded protection from projects which would despoil the inherent wilderness characteristics until a final boundary decision is made by Congress.

Exclusion of lands from the Forest Service Wilderness proposal, as suggested by this alternative, could not be classed as necessary for physical accommodation of the Hooker Dam project. Inundation of Wilderness lands by water conservation projects such as Hooker is within the scope of the Wilderness Act, Sec. 4(d)-(4). These lands can be either excluded from the Wilderness at the time the project is undertaken or they can be allowed to become inundated remaining as Wilderness. If the lands suggested for exclusion by this alternative were allowed to be flooded by the Hooker Dam reservoir, then this portion of the reservoir would be managed as Wilderness with no motor powered vessels allowed. This could easily be accomplished by bouying off the Wilderness portion of reservoir from power boat use and a minimum of patrolling to see that restrictions are respected. There would be no need for shoreline vehicular travel around the head or Wilderness portion of such a reservoir.

Environmental effects of excluding these lands which would be affected by Hooker Dam reservoir are not easy to quantify. There is no present assurance of how much of an exclusion would be necessary to accomplish the desired purpose, adding to the evaluation difficulty. It is doubtful if any significant quantity of timber would be released to the sustained yield productive base through declassification of this exclusion. Visitor use in this exclusion now occurs only along the stream bottoms as access to the remainder of the area is limited by its rough topography. Raft or innertube floating of the Gila River has become a popular Wilderness sport. Types of recreation use along Turkey Creek and the Gila River would change, not so much as a result of declassification, but more as a result of the Hooker project which would follow declassification. Deletion of this area from the proposed Wilderness would remove Wilderness protection from the unique lower elevation riparian community along Turkey Creek and the Gila River. These two stream bottoms contain the only Gila Wilderness country below 5,000 feet in elevation, supporting many plant and animal species not found elsewhere in the Wilderness.

Size of this possible exclusion has not been defined. More than the possible area that could be inundated would have to be excluded to provide an identifiable boundary on topographic

features. Canyon rims along the stream bottoms provide a possible boundary location that would exclude approximately 10,000 acres of the Forest Service proposed Wilderness.

Alternative E

Accept original Forest Service proposal, but delete lands impacted by proposed Hooker Dam and reservoir, as well as all lands northeast of the Middle Fork of the Gila River.

This alternative excludes two major areas included in the Forest Service proposed Wilderness, with all other boundary locations being acceptable as proposed. One of the exclusions is the area which would be inundated or otherwise influenced by Hooker Dam reservoir. The effects of this exclusion are described in Alternative D and are not repeated here. The other major exclusion includes all Gila Wilderness and Gila Primitive Area lands of the Forest Service proposed Wilderness, north and east of the meandering north rim of the Gila River Middle Fork. The boundary creating this exclusion would depart from the Forest Service proposed boundary at a point southeast of Snow Lake, following the Middle Fork rim downstream to its intersection with Spring Canyon. From this point, the exclusion boundary would turn east, following spur ridges, and crossing the East Fork of the Gila River to join the Forest Service boundary north of Diamond Creek. Unclassified areas, determined by the Forest Service to be suitable as Wilderness, and contiguous to Wilderness or Primitive Area lying within this suggested exclusion, would also be dropped from the Forest Service proposal. This exclusion would essentially delete the entire northwest corner of the Forest Service proposed Wilderness, containing about 72,000 net acres of National Forest land, of which 48,000 acres are existing Wilderness, 15,000 acres are Primitive Area, and 9,000 acres are Forest Service proposed contiguous additions.

Primitive Area and Wilderness lands of this large exclusion would be declassified allowing consumptive use of supported resources within the scope of proper multiple use management. Resources of contiguous additions deleted from the proposed Wilderness would remain available for consumptive use. Possibly over 20 million board feet of operable timber, occurring mainly in canyon bottoms and on north-facing slopes of Primitive Area and Wilderness lands, would be released to the productive base for sustained yield management. This volume would have an estimated gross product worth of \$3,600,000. Deleted Forest Service proposed contiguous additions contain an estimated 5.6 million board feet of operable timber. This volume, with a gross product worth of \$1,000,000 would remain available for consumptive use.

There are no known or suspected mineral resources within this area that could be more easily located or extracted without Wilderness classification.

Most of this proposed exclusion is now obligated for cattle grazing under permit. This use would continue; and construction of needed range improvements, utilizing mechanized equipment for construction or operation, could be carried out. Vegetative manipulation projects to control juniper and pine invasion of formerly open grass country could be applied to large portions of the area. Range improvements mentioned above could possibly increase the capacity for grazing use. Recreation uses involving motorized vehicles would be possible with construction of access routes. Less rugged country could be traveled by 4-wheel drive vehicles even without developed access routes. Quantity of water yield from the area would no doubt be increased, especially following vegetative manipulation projects. These and other associated resource uses would benefit the economic environment, at least at a local level. Effects upon the social factor of the environment are more difficult to assess. Although some persons would benefit by this declassification of Wilderness lands and reduction in proposed Wilderness size, others would not.

Adoption of this suggested exclusion would have many adverse environmental effects. A 72,000-acre expanse of existing and potential wilderness resource, 1/7 the size of the entire Forest Service proposed Wilderness, would be eliminated from the proposal. Natural beauty and quality of water yield would be altered by resource use and activities such as timber harvest or vegetative manipulation projects. Development would also impose additional habitat limitations on indigent species of wildlife, requiring wilderness-type country for survival. This exclusion would also have adverse environmental effects on portions of the retained Wilderness along the Middle Fork of the Gila River. Easy access into the entire length of this river fork would cause a sharp increase in visitor use of this area, affecting its wilderness quality; and solitude, the major ingredient of Wilderness, would suffer as a result of increased human use.

Alternative F

Exclude all potentially valuable mineral-bearing areas from Forest Service proposed Wilderness.

The Mineral Resources Study of the Gila Wilderness and Gila Primitive Area by the United States Geological Survey and the

United States Bureau of Mines reports that portions of the Forest Service proposed Wilderness appear to have above average mineral potential. Despite the small past mineral production, there is potential for base and precious metal deposits in addition to fluorspar. The potential is shown by evidence of hydrothermal alteration and mineralization in veins and larger rock bodies and the presence of anomalous concentrations of trace elements in some of the tertiary volcanic rocks that cover most of the area. An additional potential is represented by the possibility of concealed deposits beneath the surface volcanic rocks.

Evidence of surface exposures of mineralization is restricted mainly to the zone along the present western and southwestern Wilderness boundary between the Mogollon and Gila fluorspar mining districts and in the Alum Mountain-Copperas Canyon area on the southeast side of the present Wilderness. In addition to these areas significantly mineralized rock occurs along Big Dry Creek north to Spruce and Spider Creeks and in the Haystack and Seventy-four mountain areas.

These areas of possible significant mineralization can be segregated into two exclusions from the Forest Service proposed Wilderness, totaling about 80,000 acres, or less than 15 percent of the entire Forest Service proposed Wilderness. Although there are portions of this acreage which do not indicate significant mineralization, an exclusion of this size would be necessary to include all possible areas and provide a boundary based on topographic features with fair ease of identification. Most of the area is existing Gila Wilderness, but two portions of Primitive Area and contiguous unclassified land suitable as Wilderness are also involved.

Exclusion of mineralized areas would allow future exploration for economically valuable minerals and their extraction without the encumbrances of Wilderness prospecting and mining regulations. These lands suggested for exclusion would be open for prospecting and exploration until December 31, 1983, even if designated as Gila Wilderness. However, prospecting, exploration and mineral removal would be subject to special provisions of the Wilderness Act as described in Sec. 4(d) 2 and 3 and Code of Federal Regulations, Title 36, Sections 293.13-293.15. Wilderness designation would not "withdraw" these lands with possible minerals of economic value from mineral entry. This exclusion would probably cause increased prospecting activity in localities indicated by the USGS-USBM mineral study as having potential for base and

precious metals and fluorspar. Road access to existing or new claims would be severely limited by the extremely rugged topography of most of the area suggested for exclusion. Off-road vehicle travel by 4-wheel drive or the movement of personnel or equipment by helicopter could be accomplished along with the use of motorized equipment for deep core drilling.

Exclusion as proposed in this alternative would release an insignificant amount of timber for consumption, as a part of the productive base for sustained yield management. Operable timber is almost nonexistent, and that which could be logged could not be removed from the area without extreme difficulty. Cattle grazing use would remain unchanged if these lands were declassified. Opportunities for providing developed site recreation would be limited to several low elevation canyon bottoms; and, because of the flood hazard of these areas, permanent improvements would be in danger of destruction. The topography of this area makes it most suitable for primitive-type recreation activities, and such activities would dominate even with declassification. There would be no opportunity for water yield quantity improvement.

Deletion of these lands from existing or proposed Wilderness classification may have a beneficial effect on the social and economic environmental factors, as increased mining activities would be encouraged. This increased activity would, in turn, have adverse physical and biological environmental impacts. This area is one of the most rugged of the entire Gila Wilderness with a minimum of man's improvements. Consumptive resource use would cause an invaluable loss of wilderness resource. The quality of natural beauty, air, soil, and water resources would be degraded; and the various forms of pollution normally associated with development and increased human activity would persist.

Alternative G

Accept Joint Conservationist or other proposal for a Wilderness larger than that proposed by the Forest Service.

This alternative is commonly referred to as the Joint Conservationist Group, Gila Wilderness Proposal. It calls for a proposed Gila Wilderness with 613,938 net acres of National Forest land, or 99,260 acres more than the original Forest Service proposal which received public review. This additional acreage includes 62,415 acres of Primitive Area and 1,263 acres of existing Wilderness originally recommended by the Forest Service for

declassification. An additional 35,582 acres of land contiguous to the original Forest Service proposed Wilderness are included in this alternative proposal, which is shown on the map in the final proposal brochure.

Modifications of the Forest Service Wilderness proposal have reduced its difference from this alternative to 70,464 acres, resulting mainly from proposed Wilderness inclusion of some of the conservationist proposed additions. These lands, redetermined as suitable as Wilderness, are also shown on the final brochure map.

Those supporting Alternative G claim that all lands included within the Joint Conservationist proposal meet the requirements of the Wilderness Act as being suitable to meet the definition of Wilderness.

The remainder of conservationist proposed additions AA through LL, if added to the Gila Wilderness, would make a larger Wilderness possible, helping to satisfy social needs of the increasing portion of the population seeking the mental and physical satisfaction and enjoyment that only Wilderness can provide. The existing Wilderness resource of these lands would not be degraded through consumptive resource use and associated development.

This additional Wilderness designation would have a beneficial effect upon the physical and biological environment of these lands. The needs of resident wildlife species, dependent upon wilderness habitat, would be met; and the natural beauty, soil and water resources would be afforded more thorough protection. The various types of pollution commonly associated with development and consumptive resource use would be held in check.

Mineral resources that may be present on the proposed additions, if not mined, would remain reserved for future generations. The variety of ecosystems, a unique feature of the Gila Wilderness, would be expanded and strengthened as the proposed additions contain some vegetative types not plentiful within the Forest Service proposed Wilderness. These include some riparian vegetation along lower Mogollon Creek and open grasslands in the northern part of the proposed Wilderness. Through wilderness preservation, a biological benchmark for ecological studies would be preserved.

With adoption of this alternative, forms of consumptive resource use not compatible with Wilderness would have to be foregone for the included 70,464 acres. Areas contiguous to the west and

southwest edges of the Forest Service proposed Wilderness with significant mineralization would have the restrictive encumbrances of Wilderness designation hindering development. An estimated 29.6 million board feet of operable timber located within contiguous additions would be withdrawn from the productive base for sustained yield management. The gross product worth of this volume is estimated to be \$5,328,000. This alternative would release an operable volume of 2.8 million board feet of operable wood fiber contained on Primitive Area lands to be declassified. This volume would be added to the productive base for sustained yield management, and it would have an estimated gross product worth of \$504,000. Some areas suitable for developed site recreation use are included within the Joint Conservationist proposal. Although there are no definite plans for such developments, the possibility would be foregone with Wilderness designation. Only primitive-type recreation use would be allowed within Wilderness, excluding those persons with preference for other types of recreation experiences. Wilderness designation would not alter grazing use other than creating limitations on possible range improvements and their construction. Needed watershed rehabilitation work on Primitive Area portions of the Sapiello Creek tributary drainages could not be accomplished with Wilderness designation. Significant losses of social and economic benefits would result from the additional Wilderness designation suggested by this alternative.

Adoption of this alternative would increase administrative costs of establishing and maintaining the Gila Wilderness. There would be many more miles of boundary that would not be on topographic features and that would need heavy posting or barriers to prevent motor vehicle entry. The amount of patrolling that would be required to prevent violations or apprehend violators would also be increased.

There are many improvements and other evidence of man's activities existing upon these lands. The conservationists claim that these improvements would gradually disintegrate or could be easily removed, making rapid reversion to a natural state a good possibility. This assumption is legitimate, but the process of natural healing in southwestern arid country is extremely slow. For example, a minimum of several decades is required for the healing of old jeep trail scars. Even then, there is no assurance that destructive forces of nature, like severe erosion, would not prevail and deepen the scars. The question remains: Do such lands have the necessary characteristics of wilderness to be so designated, or do they bear a substantial

imprint of man's activities? The final decision rests with Congress. If given Wilderness status, these proposed additions would lower the overall wilderness quality of the proposed Gila Wilderness.

Those supporting this alternative have also requested that suitable portions of the Cliff Dwellings National Monument be included in the proposed Wilderness. The National Park Service was approached with this idea by the Forest Service before the original Gila proposal was made. A portion of the western unit of the Monument was suggested as being suitable as Wilderness allowing boundary location on topographic features rather than the Monument property line. This idea was not acceptable to the National Park Service because the area hadn't been fully studied by them for determination of how the Monument lands could best be used to serve visitors. The possibility of adding the suggested, or alternative, National Monument lands to the Gila Wilderness at some time in the future has not been eliminated.

Conservation groups also requested additional study of the unclassified National Forest lands between Forest Service proposed addition A and the East Fork of the Gila River. These lands were originally reviewed by the Forest Service prior to proposal preparation. This area was found to be unsuitable as Wilderness because of obvious improvements including several roads, a vegetative manipulation project where juniper and pinyon had been removed for range improvement using mechanized equipment, and many bulldozer-constructed and maintained earthen dam stock tanks. This situation has not changed.

Alternative H

Exclude all Primitive Area and contiguous lands south and east of present boundary between Tommy Hill Canyon and the Gila River Middle Fork, and land impacted by proposed Hooker Dam and reservoir.

A proposal was made to designate a Gila Wilderness with less acreage than the Forest Service proposal, excluding all of the main body of Primitive Area land east of the State Highway 15 corridor. With this alternative, the Gila Wilderness boundary would remain as it now exists from a point east of the Gila River Middle Fork and a short distance north of the Gila Visitor Center to a point north of the Gila River East Fork where the existing boundary follows Tommy Hill Canyon. Also suggested for exclusion are Gila Primitive Area lands that would be flooded by Hooker Dam reservoir. All other originally proposed

Forest Service Wilderness additions, including both Primitive Area and contiguous unclassified lands, would be accepted as a part of this alternative. With this alternative, existing Wilderness acreage that would be inundated by Hooker Dam reservoir would remain as Wilderness unless it could not be successfully managed in this manner.

This alternative would have resource impacts and environmental effects so similar to those of Alternative B that a separate discussion would not be of significance. The estimated size of this alternative Gila Wilderness is 460,000 net acres or approximately 20,000 acres larger than Alternative B.

Alternative I

No action by Congress.

The present status of the Gila Primitive Area would be preserved if Congress took no action on this or subsequent proposals to reclassify the Primitive Area to Wilderness. The Forest Service would continue to manage the Gila Primitive Area and Gila Wilderness as it has in the past. The Primitive Area would be managed under the rules and regulations affecting it on the effective date of the Wilderness Act, until Congress determines otherwise. Thus, while the Primitive Area would be managed under essentially the same restrictions and limitations as the Wilderness, the weight of statutory requirements for management of the area under the provisions afforded by the Wilderness Act would be prevented. Were this alternative selected, resources of the 29,120 net acres of suitable, contiguous, unclassified lands would continue to be available for management and consumption use. The inherent wilderness resource would be lost by consumptive uses of other resources.

VI. Relationship Between Short-Term Uses of Man's Environment and the Maintenance of Long-Term Productivity

This proposal for Wilderness fully recognizes the maximum need for protection of the remaining segments of Wilderness that would appropriately enhance the existing Gila Wilderness. Suitable portions of the Gila Primitive Area and contiguous additions with high wilderness quality will make the Gila Wilderness an outstanding unit of the National Wilderness Preservation System. Its flora, fauna, and land mass will continue to evolve with minimal disturbance by man. Beneficial impacts appear to outweigh adverse ones. In the event that the

public interest may, in the future, so require, options to draw upon the stock of renewable resources represented within the Wilderness will remain open. Congress may, at its discretion, remove all or part of the area from the Wilderness System should it be in the best interest of the Nation.

Short-term economic gains associated with resource development and consumption are foregone with Wilderness designation. To the contrary, the Wilderness resource is adversely affected if renewable resources are developed.

Existing wilderness qualities on significant land areas would be lost with selection of Alternatives A, B, E, F, or H. Each of these alternatives specifies a Gila Wilderness with substantially less acreage than that found suitable as Wilderness by the Forest Service. Alternatives C and D both include most features of the Forest Service proposed Wilderness. However, these alternatives, if selected, would not give wilderness protection to the full acreage suitable for this type of management.

Alternative G suggests a Gila Wilderness with the inclusion of substantially more acreage than the adjusted Forest Service proposed Wilderness. Lands, which the Forest Service has found unsuitable as Wilderness, would be given Wilderness designation. Portions of these lands are better suited for short-term resource uses under a proper system of multiple use management that would assure maintenance of long-term productivity.

VII. Irreversible and Irretrievable Commitment of Resources

With Wilderness classification as proposed, all resources within the area proposed as Wilderness would be preserved until the President and Congress felt the National interest would be better served by declassification. Loss of wood fiber volume through mortality and other natural causes would be insignificant compared to the total volume of this resource which could be made available at a future date.

Past activities of man and improvements existing upon the land have marred the wilderness resource on the majority of the 51,130 acres of Primitive or Wilderness lands recommended by the Forest Service for declassification. These lands have been generally sheltered from the exploitation of short-term consumptive resource use. However, their wilderness resource has been degraded to such an extent that the quality of the proposed

Wilderness would be lowered by inclusion of these lands. Consumptive resources on a portion of lands recommended for declassification would become available for use. Other portions of the declassified area would remain essentially undeveloped back country, retaining present resource-use relationships.

VIII. Consultation With Others

During the Forest Service study of the Gila Primitive Area and the formulation of the Gila Wilderness proposal, various government agencies, private and semi-public organizations, and individuals were invited to participate and offer suggestions and recommendations. Informal meetings, news media, personal contacts, and contacts by mail were used to disseminate information. Public input was solicited, and a good response was received.

A draft environmental statement for the Gila Wilderness proposal was prepared and sent to Federal, State, and local government agencies as listed in section VI of the summary. The draft environmental statement was accompanied by the proposal brochure which further explained details of the Forest Service proposed Wilderness. Both documents were made available to the public for review and comments. Public hearings were held in Silver City, New Mexico, on December 15, 1972, and in Albuquerque, New Mexico, on the following day. Oral or written comments were received from 1,349 respondents. Government and public interest is summarized in the final proposal brochure which accompanies this final environmental statement.



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